Remarks

The Office Action mailed June 12, 2008, has been carefully reviewed and the following remarks are submitted in consequence thereof.

Claims 1-22 and 24-27 are pending in this application. Claims 23 and 28-33 have been cancelled without prejudice or disclaimer of the subject matter therein. No new matter has been added. It is respectfully submitted that the pending claims define allowable subject matter.

Claims 1-3 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Noble (U.S. Patent No. 5,892,949) in view of Mutchler et al. (U.S. Patent No. 6,689,157) and further in view of Proskauer (U.S. Patent No. 5,828,674). Claims 4-12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Noble in view of Mutchler and Proskauer and further in view of Kittross (U.S. Patent No. 6,681,351). Claims 13 and 14 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Noble in view of Mutchler and Proskauer and further in view of Blitz (U.S. Patent No. 6,047,293). Claims 15-22, 24 and 25 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Kittross in view of Proskauer and Noble. Claims 26 and 27 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Kittross in view of Proskauer and Noble and further in view of Blitz. Applicant respectfully traverses these rejections for reasons set forth hereafter.

Noble describes a test programming architecture for the development and execution of test programs for a programmable tester for circuits. Noble does not describe a method for distributing software components to a plurality of test stations that each analyze products. For example, Noble describes a system that includes a server 120c that is asserted to be the equivalent to the test management system recited in Claim 1. The system also includes a tester 110, a workstation 120a (asserted to be the equivalent of the computer station recited in Claim 1). The Office Action further asserts that Noble describes "distributing the software component, from the test management system (120c) to the workstation (120a) automatically (column 1, line 53 – column 2, line 42; column 3, lines 48-56; and figures 1 and 3)". Applicant respectfully traverses this assertion. First, the specification at Column 3, lines 48-56 and Figure 1 only describe the operation and configuration of the server 120c with respect to the workstation 120a

and the tester 110. Noble does not describe in any of these references distributing the software component from the test management system (120c) to the workstation (120a) automatically. Moreover, that additional references to the specification cited in the Office Action also do not describe distributing the software component, from the test management system (120c) to the workstation (120a) automatically. It is clear from Noble, that Figure 3 and the specification text describing Figure 3, are directed to an architecture that allows users to update a single program and that Noble is not concerned with distributing software components, nor does the Office Action provide any specific citations within Noble to support this rejection.

As admitted in the Office Action, Noble does not disclose "distributing the software component, from the test management system, to the computer station <u>automatically based on at least one of an identification of the test station and an identification of the product</u>." The Office Action seeks to address the foregoing deficiencies of Noble by applying a secondary reference (Mutchler).

The Office Action asserts that Mutchler makes up for the deficiencies of Noble by teaching that the "distributing of software components is based on at least one of an identification of the test station and an identification of the product." Applicant respectfully submits that to the extent that a person of ordinary skill would have a reason to implement a software distribution method in the relevant field, that person would look to the teachings of Mutchler, not to the teachings of Noble. The person of ordinary skill would have no reason to implement Mutchler's method for installing software onto a unit under test into Noble's software development architecture that is used to update legacy software. Instead, it is submitted that Mutchler teaches distributing a software component (the test suite) <u>directly into the product being tested (the UUT)</u>, i.e. directly from the file server into the new product which performs a self test. In contrast to Mutchler, Noble teaches to update an existing software program, i.e. the legacy software, that is installed on a tester that is used to test the product using a programming architecture which differs from the claimed invention. Thus, the rejection of claim 1 is improperly based on hindsight reconstruction and should be withdrawn.

Claim 1 further recites "obtaining at least one of the software components that includes information used by a computer station which communicates with a test station to analyze a product, <u>wherein an instrument is used to test the product</u>" and "downloading at the computer

station an equipment file set including said software component, said equipment file set directing the computer station to operate the instrument to analyze the product."

As admitted in the Office Action, neither Noble nor Mutchler disclose "wherein an instrument is used to test the product" or "downloading at the computer station an equipment file set including said software component, said equipment file set directing the computer station to operate the instrument to analyze the product." The Office Action seeks to address the foregoing deficiencies of Noble and Mutchler by applying a tertiary reference (Proskauer).

Applicant submits that Proskauer fails to make up for the deficiencies noted above and in the outstanding Office Action of the two previously applied references. Proskauer describes a test system that includes a PC workstation 2000, a tester 2002, and a semiconductor handler 2004. The workstation 2000 includes an operator controls section 2022 that is installed within workstation 2000 and is loaded with a library of handler drivers. During use, an operator selects a handler from a menu of available handler drivers that are installed on the local workstation, connects it, and enables it.

The Office Action asserts, on page 5 that Proskauer describes "an instrument used to test the product (handler 2004 of figure 2)". Applicant traverses this assertion. It is clear from the reading of Proskauer that the product being tested is a semiconductor device. Moreover, Proskauer describes that "the term handlers is used generically to refer to packaged device handlers or wafer probers." As is well known in the art and stated in Proskauer, a device handler or wafer prober is a material handling system that positions a semiconductor device for testing by a tester 2002. The wafer prober or device handler is not the same as the instrument used to test the product as the instrument used to analyze the product as recited in Claim 1. Rather, Proskauer clearly describes that the tester 2002 is used to perform a full test or "job" on a device under test (DUT).

The Office Action also asserts on page 5 that Proskauer also describes downloading at the computer station an equipment file set including said software component, said equipment file set directing the computer station to operate the instrument to analyze the product. Applicant respectfully submits that Proskauer describes that each handler has its own driver containing only the code necessary to operate that specific handler. However, the handler does not analyze

the product as asserted in the Office Action at page 5, rather the device is analyzed or tested using the tester 2002. As such, Proskauer does not describe downloading at the computer station an equipment file set including said software component, said equipment file set directing the computer station to operate the instrument to analyze the product as recited in Claim 1. For at least the reasons state above, Claim 1 is submitted to be patentable over Noble in view of Mutchler and further in view of Proskauer.

With respect to Claim 2, as discussed above Proskauer does not describe "said equipment file set directing the computer station to operate an instrument, said equipment file set being uniquely associated with the computer station and independent of the product" as recited in Claim 2. Rather Proskauer describes that each handler has its own driver containing only the code necessary to operate that specific handler. Proskauer does not describe any software being installed on the computer to operate the tester 2002 and therefore does not describe an "equipment file set directing the computer station to operate the instrument" as recited in Claim 2.

Since, Proskauer does not describe software being installed on the computer to operate the tester 2002. Proskauer also does not describe the recitations of Claims 3. Moreover, Claims 2-3 depend from Claim 1, which is submitted to be in condition for allowance. In view of the foregoing, it is submitted the claims 2-3 are also patentable over the cited art.

Turning to the obviousness rejection of claims 4-12, Applicant submits that Kittross fails to make up for the deficiencies noted above regarding the three previously applied references. Moreover, claims 4-12 depend from Claim 1 which is considered to be patentable over the cited art. In view of the foregoing, it is submitted the claims 4-12 are also patentable over the cited art.

Additionally, turning specifically to the rejection of Claim 8, Claim 8 further defines the equipment file set to include a file identifying a communications protocol between the computer station, the product and the instrument used to test the product. As discussed above, the handler driver described by Proskauer is not the same as the instrument used to test the product as recited in the claims. Proskauer clearly describes that the instrument used to test the semiconductor package is the tester 2002.

The Office Action cites to portions of column 6 in Proskauer as allegedly teaching the claimed limitation. The undersigned strenuously disagrees. Column 6 of Proskauer does not describe a protocol identification file in an equipment file set. Proskauer's handler driver 2024, handler tester control 2026 interface 2008, or tester 2002 do not create, nor save, the claimed protocol identification file. In fact, Proskauer does not need a protocol identification file as Proskauer's handler drivers, used to operate the handler 2004 not the tester 2002 which analyzes the product, are written and stored directly on a single workstation. In contrast, in claim 8, the protocol identification file (as part of the equipment file set) is distributed automatically to remote computer stations. Therefore, Proskauer does not describe an equipment file set to include a file identifying a communications protocol between the computer station, the product and the instrument used to test the product as recited in Claim 8.

Claim 9 further defines the equipment file set to include a file identifying a calibration for an instrument to be used by the computer station to analyze the product. The Office Action cites to portions of column 6 of Proskauer as allegedly teaching the claimed limitation. The undersigned strenuously disagrees. Column 6 of Proskauer also lacks any true discussion of the claimed calibration file. Specifically, no where in Proskauer is there described calibrating the tester 2002 or the handler 2004 which the Office Action has erroneously asserted is equivalent to the instrument used to analyze the product.

Turning to the obviousness rejection of claims 13 and 14, Applicant submits that Blitz fails to make up for the deficiencies noted above regarding the three previously applied references. Blitz describes a semiconductor test system in which a spreadsheet workbook has one or more spreadsheets containing nested levels of name device parameter data. Blitz, like Proskauer, describes that the handler drivers are installed in the operator controls section 2022 located within workstation 2000. As discussed above in Proskauer, the term handlers is used generically to refer to packaged device handlers or wafer probers. As is well known in the art and stated in Proskauer, a device handler or wafer prober is a material handling system positions a semiconductor device for testing by a tester 2002. The wafer prober or device handler is not the same as the instrument used to test the product as the instrument used to analyze the product as recited in Claims 13 and 14. Rather, Proskauer clearly describes that the tester 2002 is used to perform a full test or "job" on a device under test (DUT).

As such, Blitz does not describe a method for distributing software components that includes "storing a relationship between the software components, products, instruments, and computer stations" as recited in Claim 13, nor does Blitz describe a method for distributing software components that includes "storing in a database information identifying multiple products, test stations used to test each product, instruments used to test the products, and fixtures used to hold the products" as recited in Claim 14.

Turning to the obviousness rejection of claims 15-22, 24 and 25, Applicant submits that the outstanding Office Action fails to set forth a prima facie case of obviousness. No legitimate reason exists to modify the combined teachings of Kittross and Proskauer based on Noble. Claim 15 recites "a management system database configured to be used with a computer station that operates an instrument when analyzing a product, wherein the database stores software components that are configured to be executed by the computer station to communicate with and operate the instrument in order to analyze the product, the database is located remotely from the computer station and automatically accesses the software components based on identification of at least one of the computer station, the instrument and the product."

As acknowledged in the Office Action, Kittross and Proskauer fail to locate a database remote from the computer station. Noble allegedly makes up for this deficiency. As discussed above with respect to Claims 2 and 3, Proskauer describes a test system that includes a PC workstation 2000, a tester 2002, and a semiconductor handler 2004. The workstation 2000 includes an operator controls section 2022 that is installed within workstation 2000 and is loaded with a library of handler drivers. During use, an operator selects a handler from a menu of available handler drivers that are installed on the local workstation, connects it, and enables it.

The Office Action asserts that Proskauer describes "an instrument used to test the product (handler 2004) of figure 2." Applicant traverses this assertion. It is clear from the reading of Proskauer that the product being tested is a semiconductor device. Moreover, Proskauer describes that "the term handlers is used generically to refer to packaged device handlers or wafer probers." As is well known in the art and stated in Proskauer, a device handler or wafer prober is a material handling system that positions the semiconductor device. The actual testing is accomplished by the tester 2002. The wafer prober or device handler is not the same as the instrument used to test the product as the instrument used to analyze the product as recited in

Claims 2 and 3. Rather, Proskauer clearly describes that the tester 2002 is used to perform a full test or "job" on a device under test (DUT). Proskauer also describes that each handler has its own driver containing only the code necessary to operate that specific handler. However, the handler does not analyze the product as asserted in the Office Action, rather the device is analyzed or tested using the tester 2002.

As such, Proskauer does not describe that "database stores software components that are configured to be executed by the computer station to communicate with and operate the instrument in order to analyze the product" as recited in Claim 15, nor do Noble or Kittross teach this limitation. Additionally, Proskauer does not teach that "the database is located remotely from the computer station and automatically accesses the software components based on identification of at least one of the computer station, the instrument and the product" as recited in Claim 15. Rather, as discussed above, Proskauer teaches that files installing files to operate the handler, Proskauer does not teach a database that "automatically accesses the software components based on identification of at least one of the computer station, the instrument and the product." As such, Noble does not make up for the deficiencies of Kittross and Proskauer with respect to Claim 15. Accordingly, Claim 15 is submitted to be patentable over the cited art for at least the reasons set forth above.

Claims 16-20 depend from Claim 15, which is submitted to be in condition for allowance. In view of the foregoing, it is submitted the claims 15-20 are also patentable over the cited art.

Applicant traverses the rejection of claim 21. Claim 21 recites a system including "a computer station configured to control operation of an instrument as the instrument analyzes a product, said computer station controlling the instrument based on an equipment file set; a test station communicating with said computer station and said instrument; and a management system database located remotely from said computer station and in communication with said computer station, said database storing said equipment file set, said database being accessible by said computer station, wherein said computer station controls said instrument during analysis of the product based on said equipment file set, and wherein said equipment file set includes a set of software components associated with said test station and independent of said product."

As acknowledged in the Office Action, Kittross and Proskauer fail to locate a database remote from the computer station. Noble allegedly makes up for this deficiency. As explained above, Proskauer does not teach "wherein said computer station controls said instrument during analysis of the product based on said equipment file set, and wherein said equipment file set includes a set of software components associated with said test station and independent of said product" as recited in Claim 21.
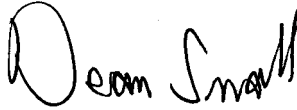
Claims 22-25 depend from Claim 21, which is submitted to be in condition for allowance. In view of the foregoing, it is submitted the claims 22-25 are also patentable over the cited art.

Turning to the obviousness rejection of claims 26 and 27. Claim 26 depends from Claim 21 and further recites "a developer file that enables a user to track relationships between said instrument and said computer station." As acknowledged in the Office Action, Kittross and Proskauer fail to disclose a developer file that enables a user to track relationships between said instrument and the computer station. Blitz allegedly makes up for this deficiency.

Blitz describes that a data manager 316 passes data from the Excel workbook 312 to the instrument drivers for application to the tester 2002. Data manager 316 assembles parameter data structures that hold the specific data passed to tester 2002 during a test job. However, Blitz does not describe that the workbook 312 "enables a user to track relationships between said instrument and said computer station" as recited in Claim 26. Rather, the workbook 312 as taught by Blitz includes only device parameter data, that once determined is sent to the instrument drivers for application to the tester. Blitz does not teach that the workbook "enables a user to track relationships between said instrument and said computer station" as recited in Claim 26. Since, Blitz does not describe the developer file recited in Claim 26, Blitz also does not describe the pre-release tool recited in Claim 27. As such, Claims 26 and 27 are also patentable over the cited art.

In view of the foregoing amendments and remarks, all the Claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,

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